

WHAT IS CLAIMED IS:

1. A fuel injection valve, comprising:
 a housing;
 a core secured internally of said housing;
 an electromagnetic coil disposed externally around said
core,
 a valve body of a substantially cylindrical form secured
to said housing;
 a rod-like valve element disposed to be reciprocatively
movable within said valve body;
 an armature secured to said valve element at one end thereof
and attracted to said core upon electric energization of said
electromagnetic coil; and
 a valve seat disposed at one end of said valve body and
having a seat portion against which other end face of said valve
element bears and an injection port through which a fuel flows,
 wherein a variable gap is formed between an end face of
said armature and that of said valve body in such an arrangement
that fuel flow path area of said variable gap is diminished as said
valve element moves toward said valve seat.
2. A fuel injection valve, comprising:
 a housing;
 a core secured internally of said housing;
 an electromagnetic coil disposed externally around said
core,
 a valve body of a substantially cylindrical form secured
to said housing;
 a rod-like valve element disposed to be reciprocatively
movable within said valve body;
 an armature secured to said valve element at one end thereof
and attracted to said core upon electric energization of said
electromagnetic coil;
 a cylindrical sleeve secured to said valve body at one
end thereof on the side of said armature and projecting toward said
armature; and

a valve seat disposed at other end of said valve body and having a seat portion against which other end face of said valve element bears and an injection port through which a fuel flows,

wherein a variable gap is formed between an end face of said armature and that of said sleeve in such a manner that fuel flow path area of said variable gap is diminished as said valve element moves toward said seat portion.

3. A fuel injection valve according to claim 1,
wherein a thin portion is formed in an outer peripheral portion of said armature for diminishing a magnetic flux path area.

4. A fuel injection valve according to claim 3,
wherein said armature is fixedly secured to said valve element at said thin portion by welding.